
ARCHITECTURAL DESIGN THESIS

BY

JOSHUA LASSITER

COMMUNICATING THE FUTURE

INFORMING A COMMUNITY ABOUT THEIR IMPACT ON THE ENVIRONMENT

SELMA PUBLIC LIBRARY AND HISTORIC ARCHIVES

BALL STATE UNIVERSITY
DEPARTMENT OF ARCHITECTURE
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have contributed to the success of this thesis.

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THESIS STATEMENT

To continue a community's development toward a better and more informed tomorrow, the community needs to continually educate itself. Communities educate themselves in two ways: one from schools or being taught; and the other from experiences or events that teach. The intent of this thesis is to explore how architecture can communicate with a community to raise its awareness concerning its impact on the environment. This thesis proposes that a new public library incorporating the town archives be built in Selma, Indiana. Selma, a small rural agricultural town, has recently experienced a decline in its vitality. Much of the downtown has been demolished with little consideration given to the reuse of buildings or infilling new buildings that would maintain the character of Selma. This library thus focuses on informing the Selma community about its impact on the environment. The library communicates with the community, the idea that each person can create a better place to live, by understanding how they impact the environment. This thesis proposes the use of regional materials, and the importance of considering the local architectural context in design. Focusing on how each might help to communicate the impact the community has on the environment. It is the intent of this library to lead the community of Selma in beginning to re-evaluate its methods of consumption and waste to create a better place to live.

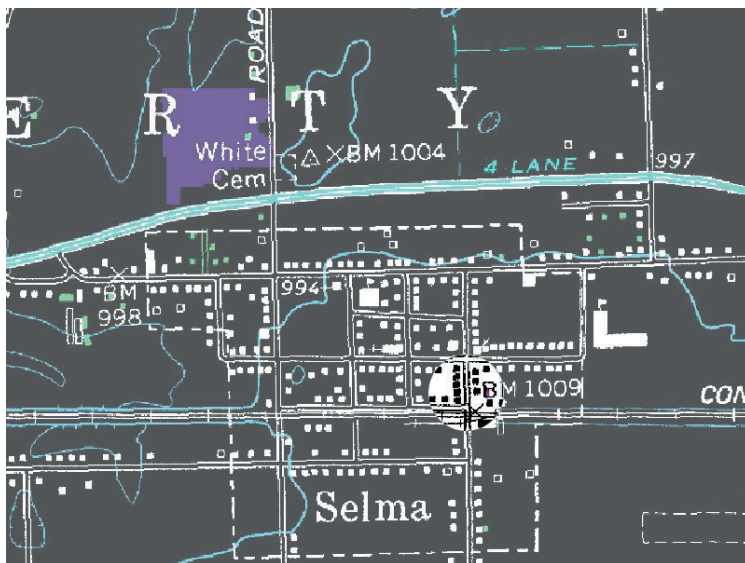
OBJECTIVES

- Provide a place to communicate the lessons of the past to advance into the future.
- Provide a place that communicates the environmentally sensitive nature of the future.
- Provide a place that has a connection with the community's agricultural heritage.
- Provide a place that links the Community with the local schools.
- Provide a place that takes advantage of the community's used goods through re-use or recycling.
- Re-create a Downtown Corridor through Selma.

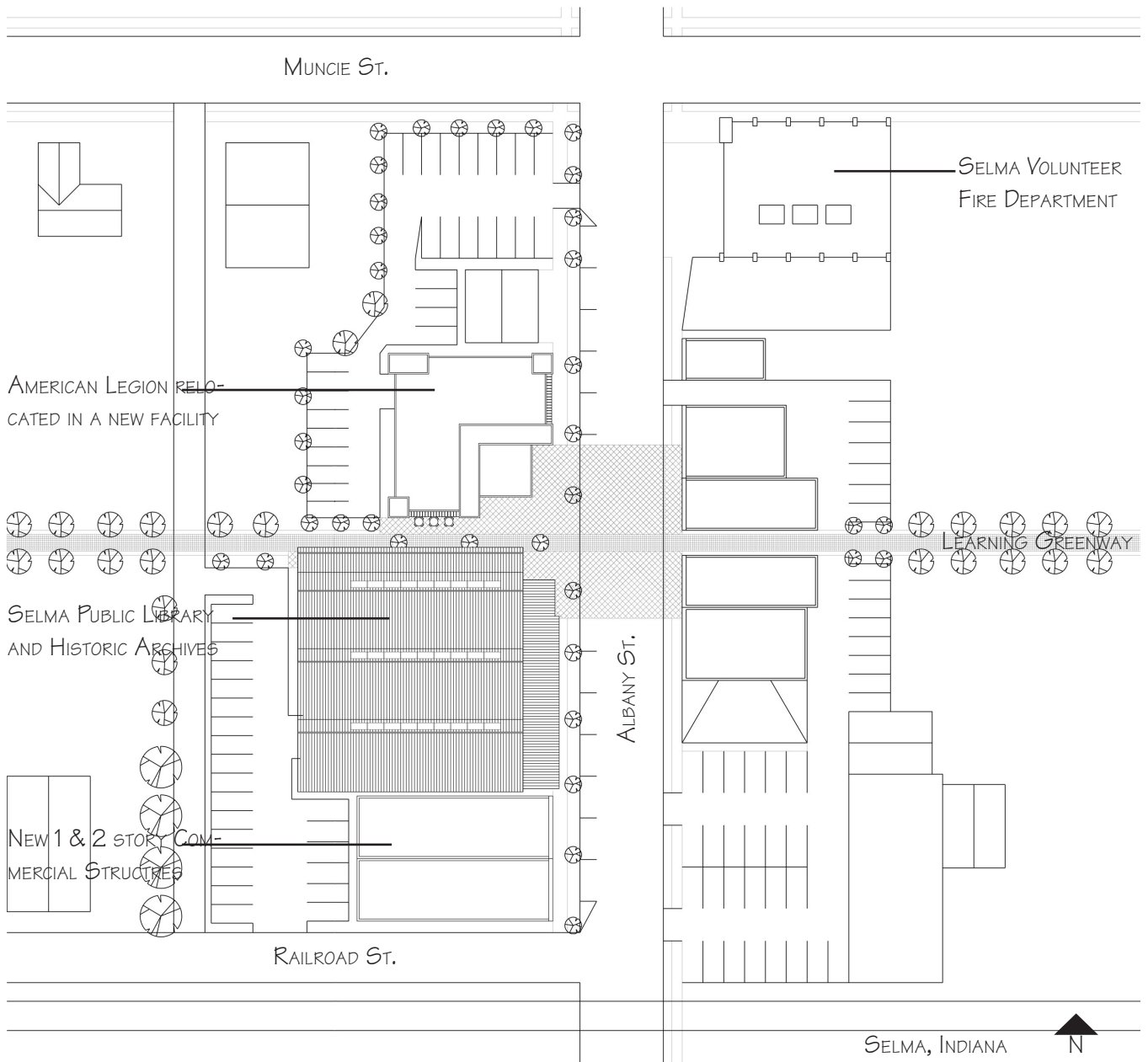
SELMA, INDIANA

Selma, Indiana is a small rural community located just east of Muncie. Selma has had a heritage of being an agricultural town. In the early part of the last century downtown Selma was busy, full of life. Selma had two new train tracks installed that linked it with East Coast industries. When this occurred Selma built a new CO-OP grain silo to allow for the shipment of goods off to the East Coast. Selma was a prospering town until the later part of the last century, when Selma began to see the buildings downtown be torn down and replaced with buildings that exhibit little character. As the town exists today a few of the original buildings exist but most have been torn down. This has left what used to be a vibrant, full downtown with several vacant lots looking rather empty and characterless and identity less.

I chose downtown Selma for a new public library to raise the community's awareness concerning the environment. This community in its recent history has not been able to come to grips with the idea of waste. The community has been destroying buildings and rebuilding new buildings in their place with little thought given to re-using the building. It was my intent to educate this community about how they do not have to destroy buildings or throw everything away. The library will thus begin to educate the community about its impact on the environment and how it can help to create a better place to live.



CONTEXT



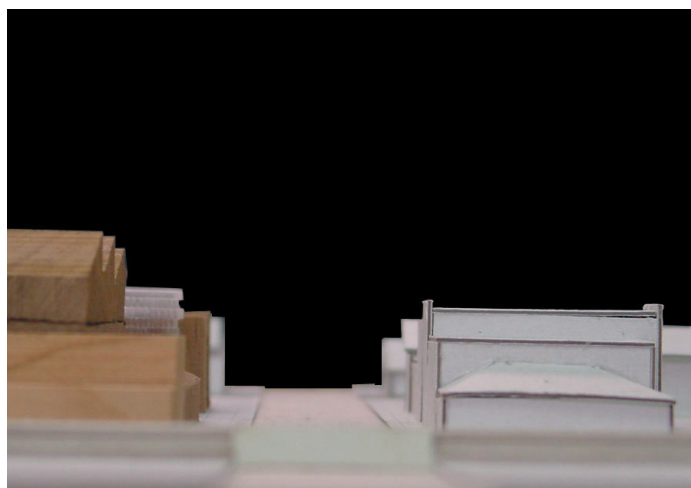
The immediate site for development was seen as any properties along Albany Street bordered by Muncie Street to the North and Railroad Street to the south. This site is part of the commercial district, which provides several vacant lots to work with. This site was chosen because it is centrally located within the town limits. The site is a few blocks from the local elementary school. This site is also adjacent to the post office and the towns grain silos.

DOWNTOWN CORRIDOR

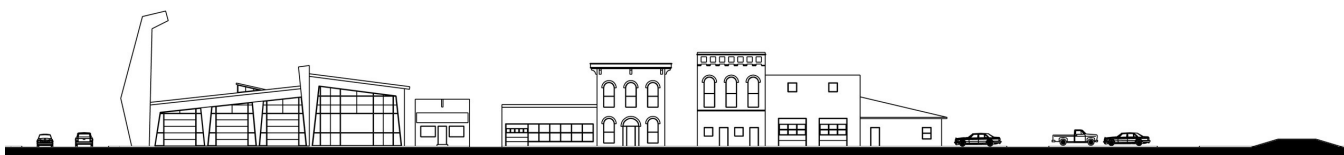
A stated objective of this thesis was to “Re-create a Downtown Corridor through Selma.” The re-creation of Selma’s downtown is important to create a focus of activity that had been lost. This also would help in the re-creation of Selma’s identity. The re-creation is to be accomplished by the creation of 5 new buildings on vacant lots. The first building is to house the relocated Selma Volunteer Fire Department. The second building is for the relocation of the American Legion. This building is accompanied by the construction of a new Public Library. The forth and fifth buildings are two proposed commercial structures. All of these buildings were sited and designed in such a way that blended their scales with that of the greater Selma community. This can be seen on the east and west elevations of Albany Street. The taller structures are in the middle of this block. The neighboring buildings reduce in height to single story structures near the end of the block. To allow for more buildings to built on this corridor most of the parking is located behind the buildings. This also encourages the use of the Learning Greenway.



Downtown Corridor (Before)

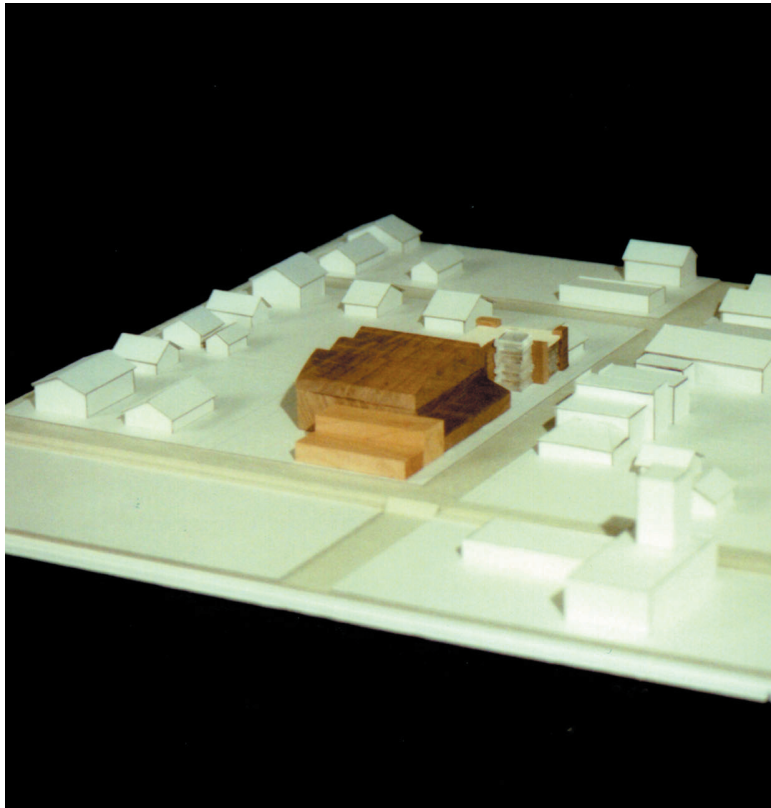


Downtown Corridor (After)

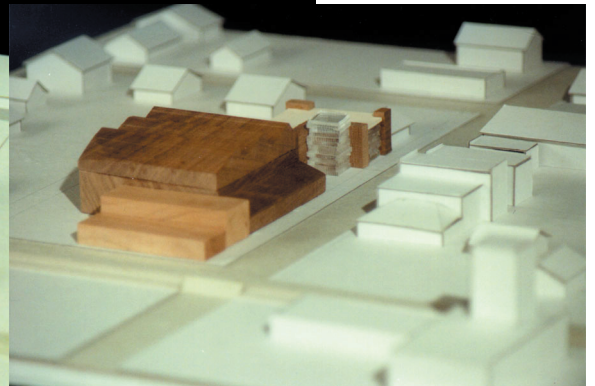




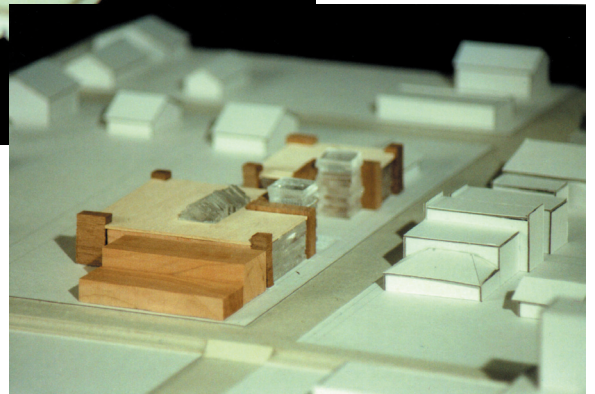
Existing Streetscape



Site Model



Final-Review Library



Mid-Review Library



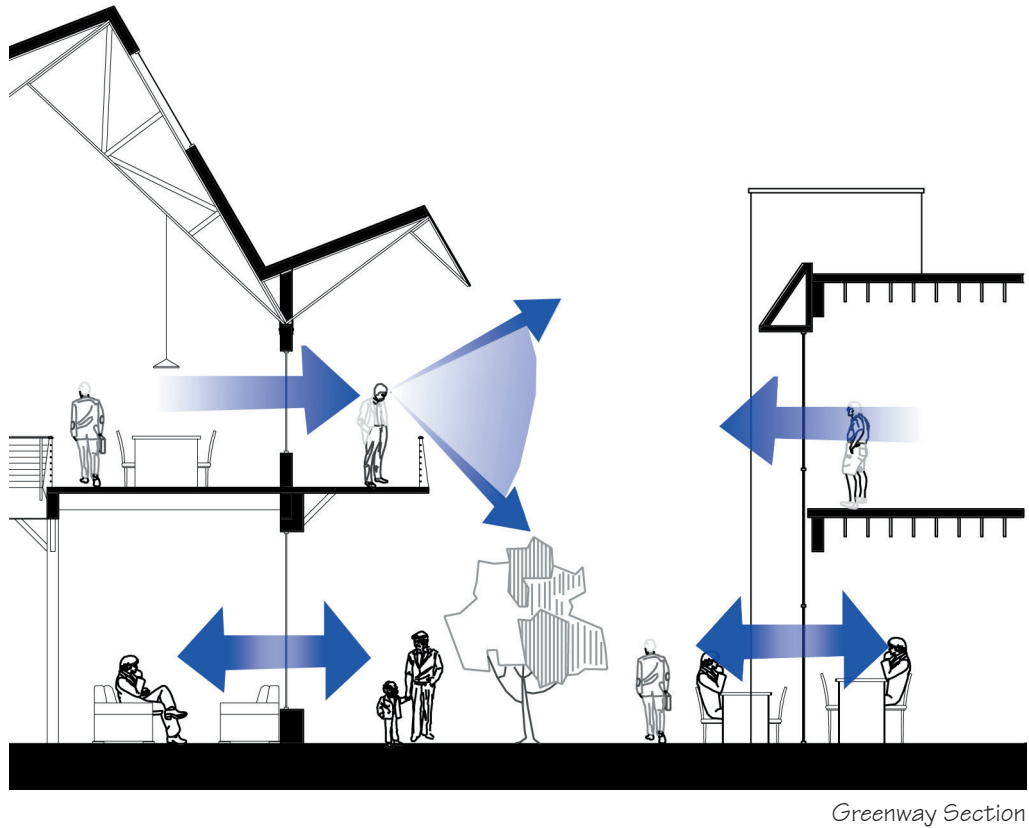
Albany St. West Side

LEARNING GREENWAY

A stated objective of this thesis is to “provide a place that links the community with the local schools.” The learning greenway is the vehicle upon which this happens. The learning greenway is the transformation of an existing alleyway into a pedestrian path. The greenway is designed to connect the neighborhoods & park on the west side of town with the school on the east side of town. Along the greenway a visitor would be able to find informational plaques that provide information about the history of Selma. There would also be informational plaques on how each person could contribute to creating a better environment to live within. As the greenway passes through downtown, the new Public Library and American Legion Cafe would have spaces within that spill out onto the greenway. The location of the library along the greenway also contributes to the educational aspect of the greenway offering information to the community and the schools. The greenway also creates a new community activity space at its intersection with Albany Street.



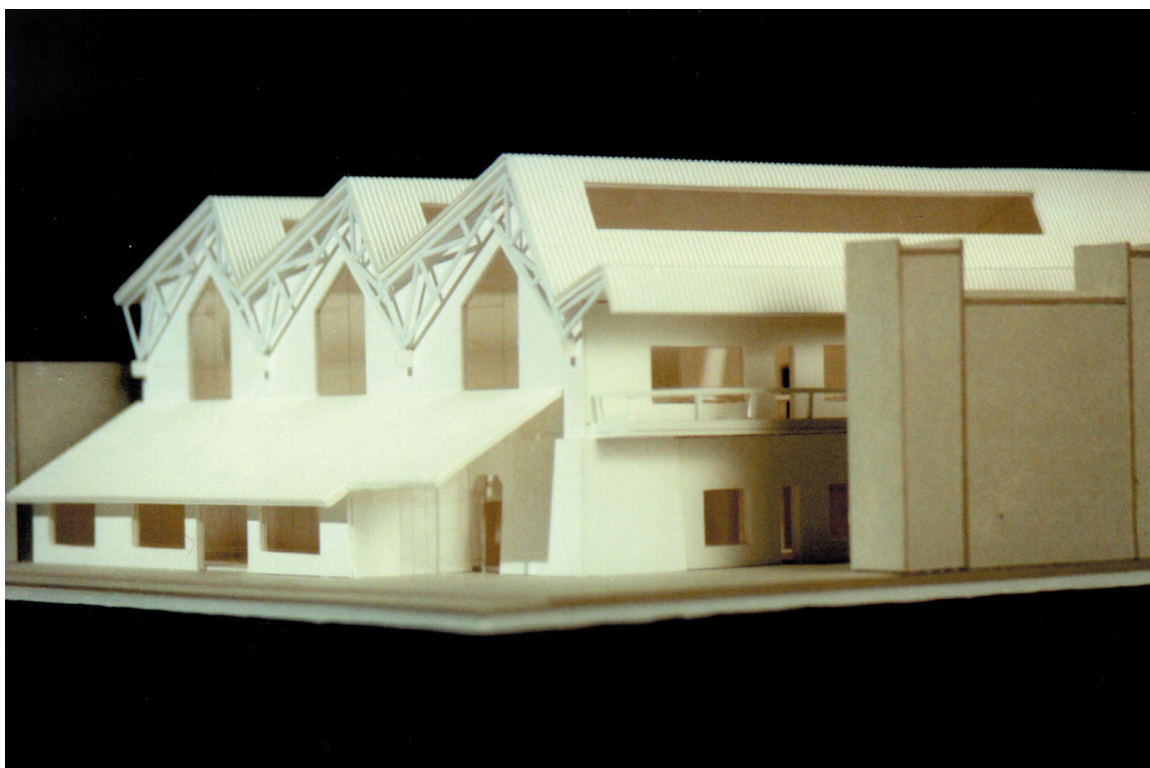
Greenway Connections Diagram



SELMA PUBLIC LIBRARY

A stated objective of this thesis is to “provide a place to communicate the lessons of the past to advance into the future.” The library is thought of as a good vehicle to educate and communicate with a community because it offers its services to the widest range of users. The library is uniquely suited to educate people about the past, especially this library with its inclusion of the town’s historical archives and a special section devoted toward environmental awareness. People of the Selma community may then use this information to allow themselves to make better, more informed decisions.

The Selma Public Library includes all aspects of a library that one might expect to see. This library has four main spaces. The first of the main spaces is the collection area, which contains many book stacks, ranging from fiction to non-fiction with a special section devoted to environmental awareness. The second space is the reading area. This space contains couches, chairs, individual workstations, and group workstations to allow for a range of different uses. The third space is the archival area. This space has secure storage units, as well as tables and chairs to use for the viewing of the archives. The fourth space is the children’s area used for the education and promotion of reading with children. This library also includes offices, a computer area, a checkout area, a periodical area, a meeting room, a staff lounge, restrooms, and a maintenance room.



Building Model

SPACE SUMMARY

SPACE	QUANTITY	AREA(S.F.)	TOTAL AREA
Exhibit Gallery	1	300	300
Book Stacks	60	135	8,100
-General Collection fiction	16	135	2,160
-General Collection non-fiction	24	135	3,240
-Childrens	8	135	1,080
-Special Collection Environmental Resources	12	135	1,620
Periodical Area			1,600
-Magazine Racks	2	125	250
-Book shelves	10	135	1350
Reading Area			690
-Private	3	80	240
-Group	3	150	450
Computer Area			385
-Private	3	55	165
-Group	2	110	220
Checkout Area	1	125	125
Photocopier Area	2	30	60
General Collection Storage	2	400	800
Archive Viewing Room	1	250	250
Archive Storage	1	400	400
Conference Room	1	350	350
Facility Manager's Office	1	150	150
Librarian's Office	1	125	125
Archive Director's Office	1	125	125
Janitor's Office	1	100	100
Staff Lounge	1	150	150

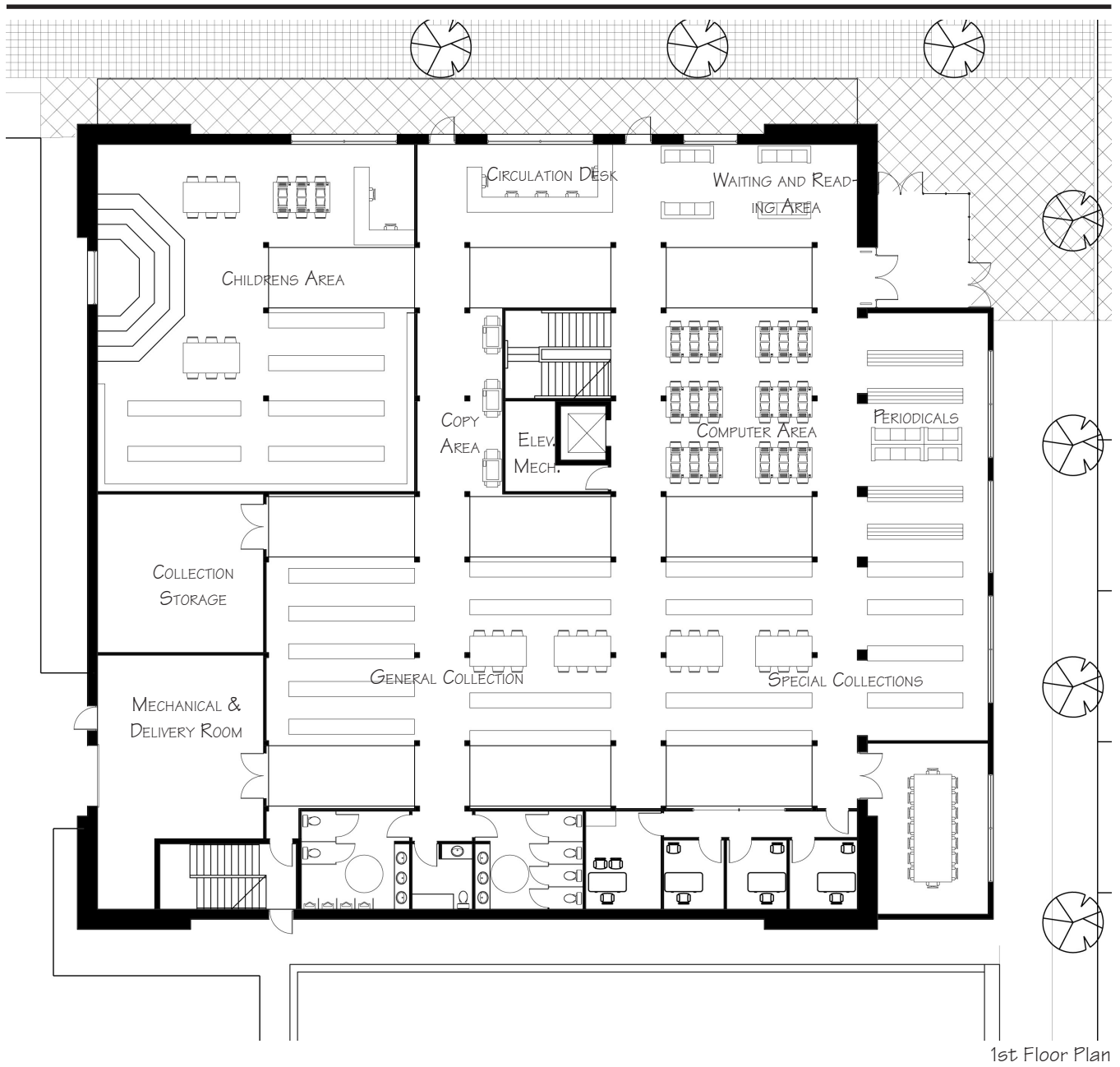
TOTAL

13,710

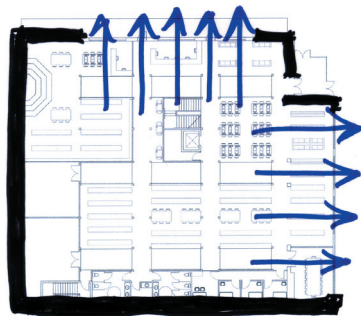
Net/Gross Factor

7,390

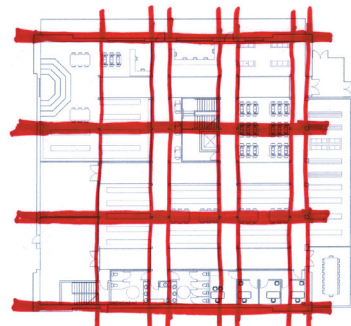
A net to gross factor of 65/35 is applied to the total net square feet of 13,710 s.f. to accomodate space required for corridors, public toilets, stairs, elevators, interior and exterior walls, structure, and mechanical/ environmental systems.



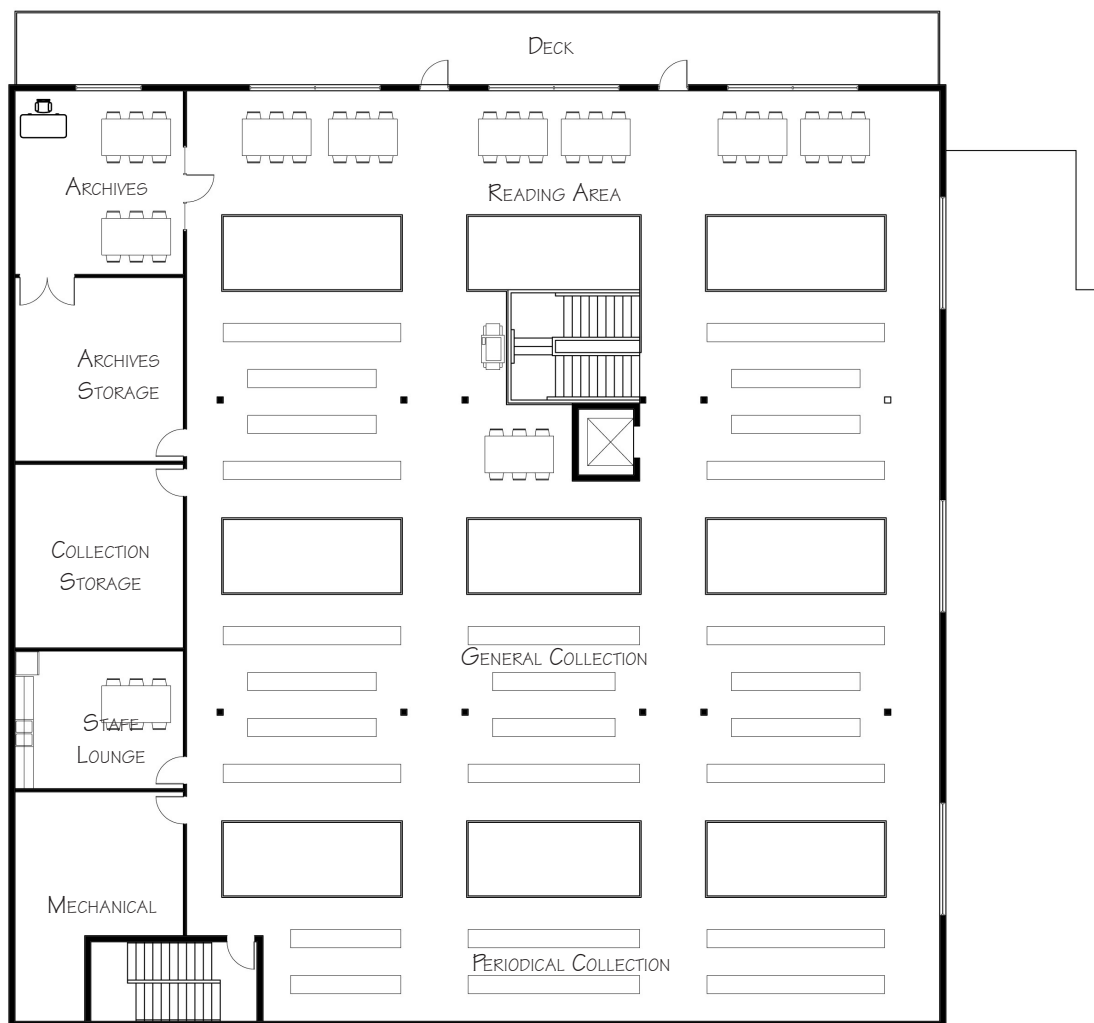
1st Floor Plan



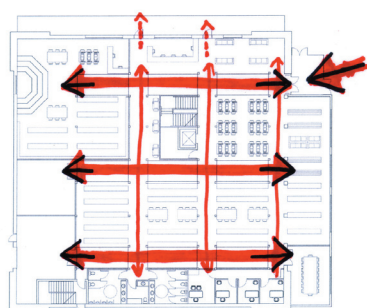
Views Diagram



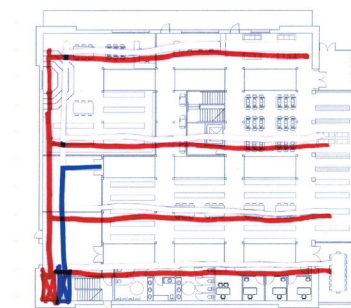
Structural Diagram



2nd Floor Plan



Circulation Diagram



HVAC Diagram

AGRICULTURAL HERITAGE

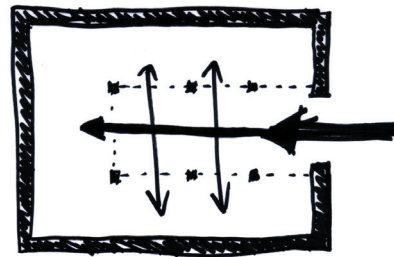
A stated objective of this thesis is to “provide a place that has a connection with the community’s agricultural heritage.” The Selma community has had a strong relationship through its history with the agricultural industry. The design of the Selma Public Library references the community’s familiarity with agricultural buildings. The library is organized in such a way that mimics the organization of local barn structures, in which many workspaces are located off of a strong central path. The library was also organized in such a way that all of the main circulation spaces travel east and west through the library, referencing how the community’s agricultural goods make their way to the east and west coasts. The local barn shape was also referenced to create a familiar and comfortable piece of architecture for Selma, Indiana. This was done in conjunction with referencing typical barn materials such as wood siding, stone walls, and standing seam metal roofing.



Local Barn



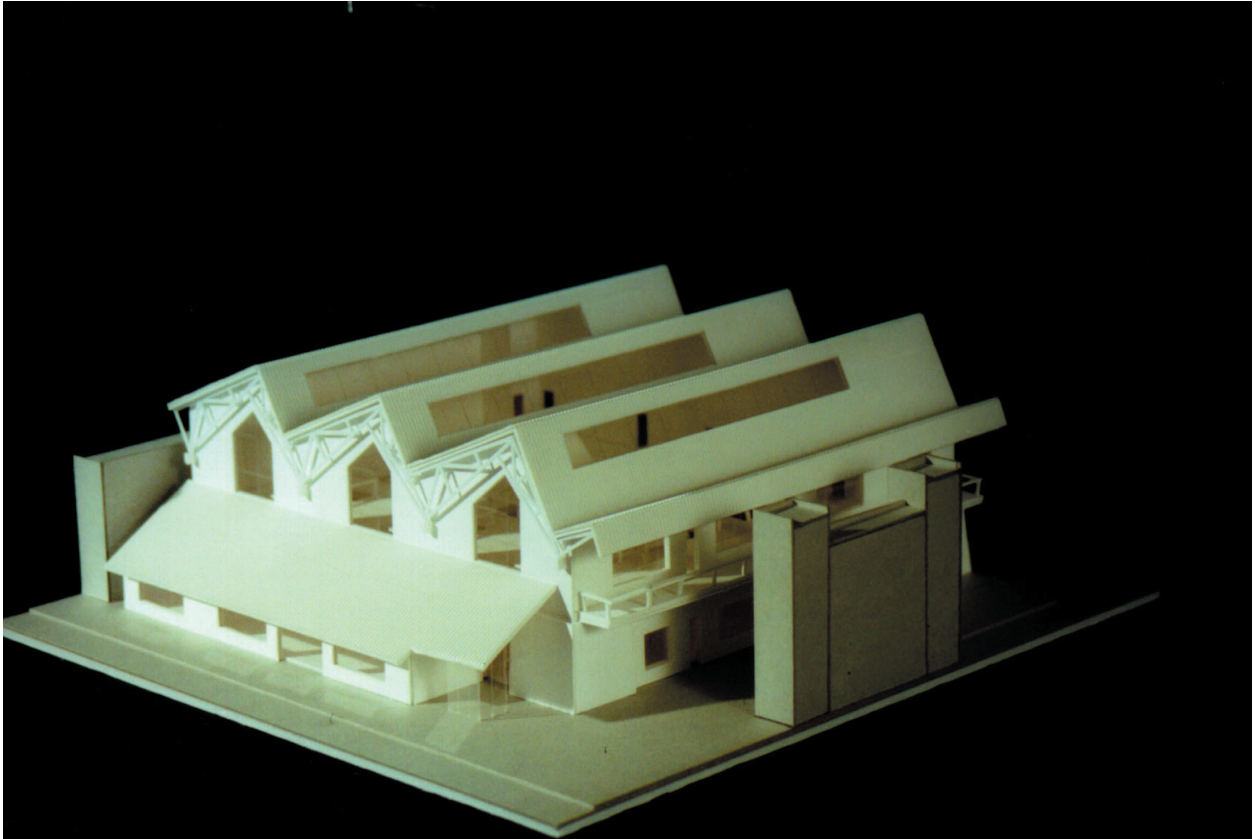
Local Barn



Barn Diagram



West Elevation



Building Model

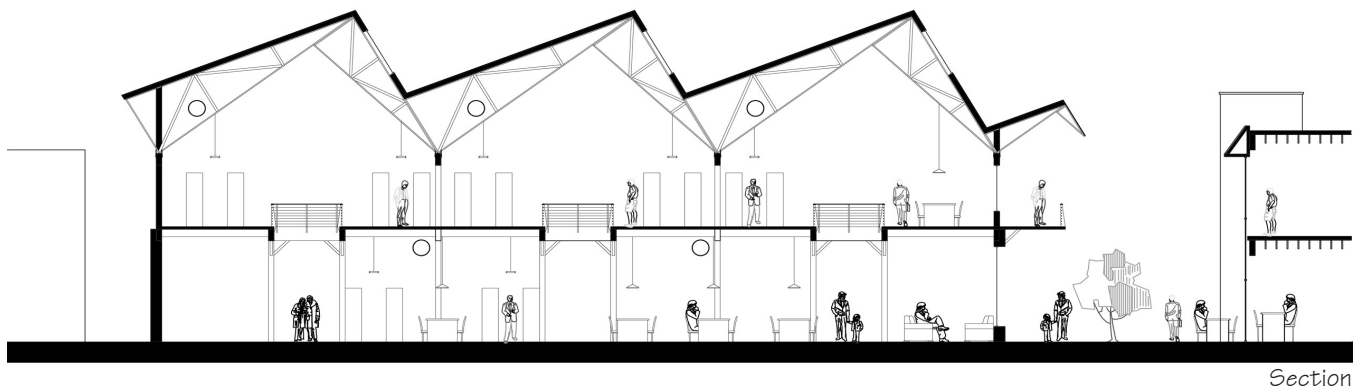


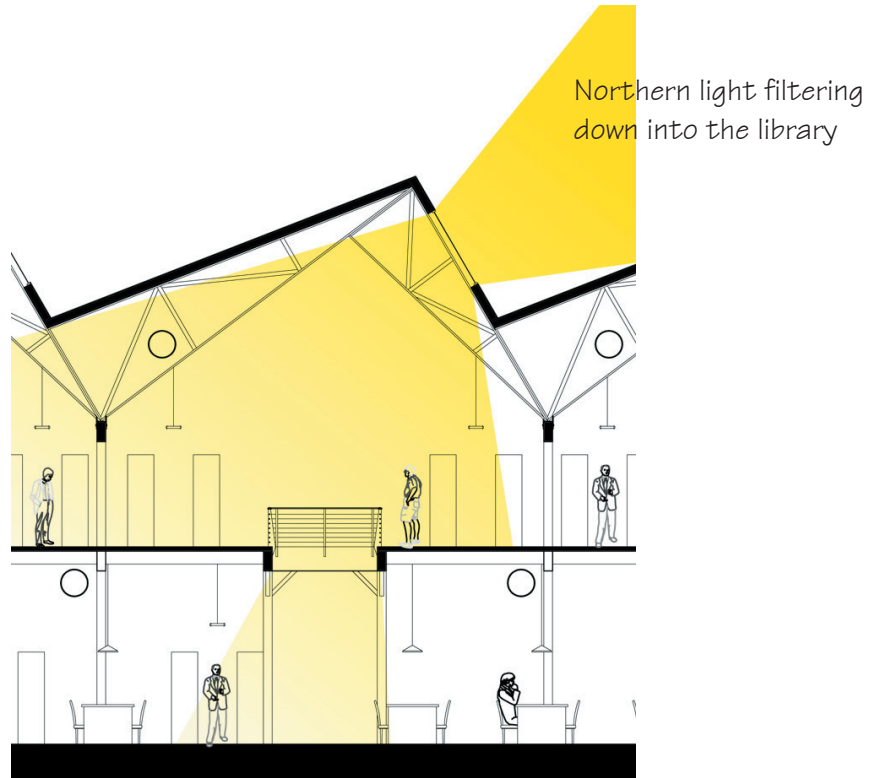
South Elevation

ENVIRONMENTAL CONSIDERATIONS

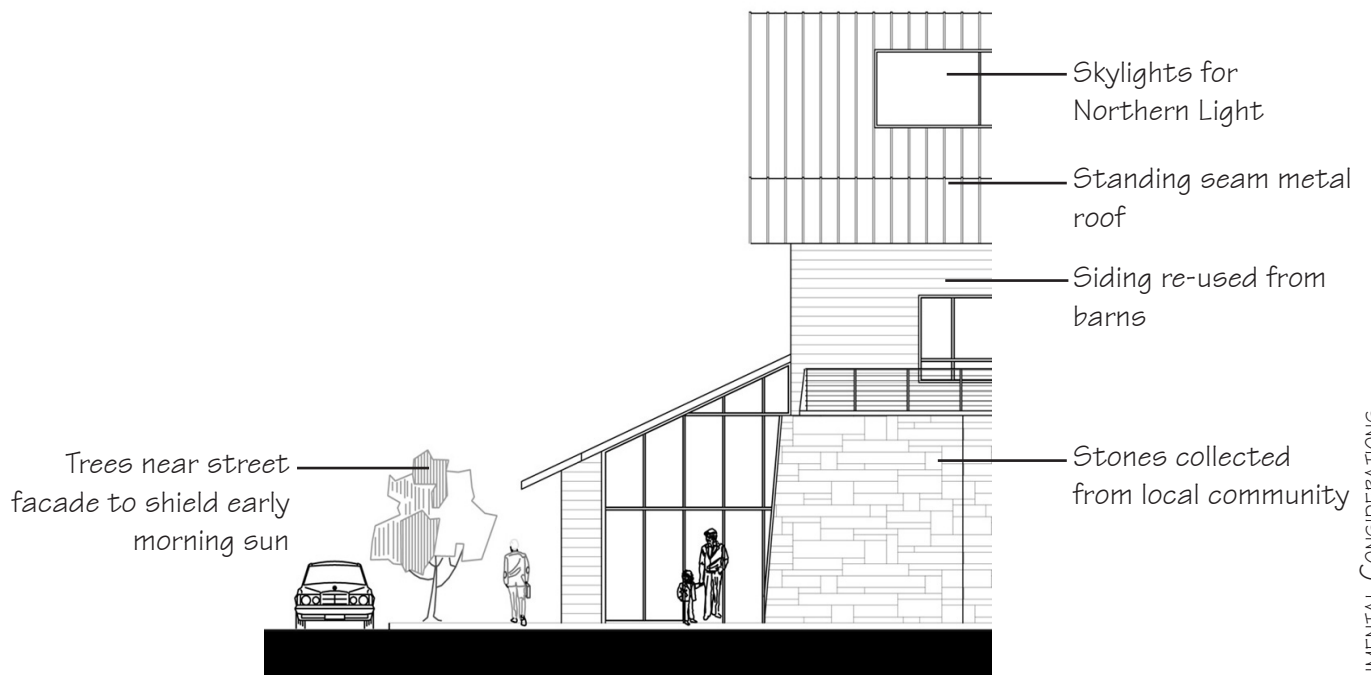
A stated objective of this thesis is to “provide a place that takes advantage of the community’s used goods through re-use or recycling.” It is the intent that this library would recycle the wood siding from local barn structures as they are destroyed or fall down. From these same structures the library would attempt to recycle as many of the columns and beams as possible. This will be done for two reasons, the first being to create a building that has little impact on the environment, the second being these materials bring with them into the library a history and character that the community is familiar with. The local community would also be asked to search their farms and fields for large stones that would be used to create the base of the building. Great lengths would be taken to make sure all of the materials used in the libraries construction were able to be found locally.

Another stated objective of this thesis is to “provide a place that communicates the environmentally sensitive nature of the future.” Another environmental feature of this building is that it attempts to maximize the use of natural light. Three large skylights oriented to the north are located on the roof, which allow indirect northern light to filter down into the library. During daytime hours this would help to reduce the electrical needs typically required by lighting fixtures. Although not currently designed into this version of the library, it could easily be adapted to take advantage of water collection schemes to use in the restroom facilities. The library could also be adapted to take advantage of stack ventilation schemes to economically move air through the library.





Lighting Diagram



Material Identification

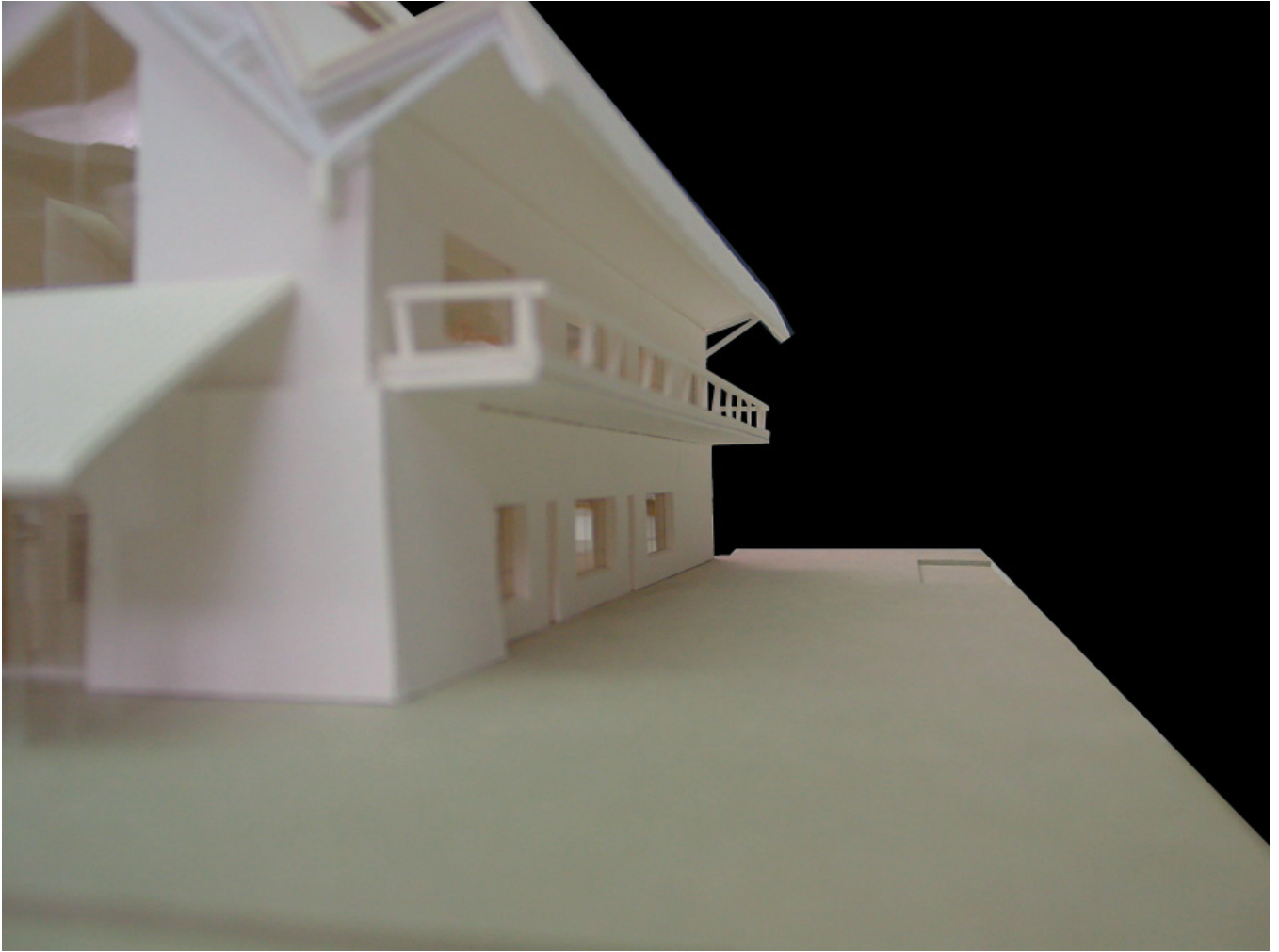
COMMUNITY CONSIDERATIONS

An unstated objective that was considered to be important throughout the library's design is, "the building should be a place that fits contextually into the Selma Community." One of the ways this is addressed is through the careful consideration of the scale of the library as it relates to the community and the individual user. As mentioned earlier, the library is designed to fit within the scale of the streetscape. The library is also designed to provide a comfortable scale for each of the users as they approach and pass by the library. The first gesture that is made is to bring a one-story portion of the library out to the sidewalk to create a more personal experience with the building. The next gesture toward the individual is the creation of a balcony overlooking the learning greenway. This helps to breakup a two-story wall and creates a comfortably sheltered outdoor spaces on the balcony and on the greenway.

A couple of other ways that address this contextual idea have already been mentioned in this thesis. The first is creating an identity for this building that would be familiar to the residents of Selma. This was accomplished by drawing from the agricultural structures in and around Selma for design suggestions. The second way was to involve the community's participation in the library's construction through the collection or use of regionally available materials. This allowed the building to fit the material palette of the community just be re-using or buying local materials.



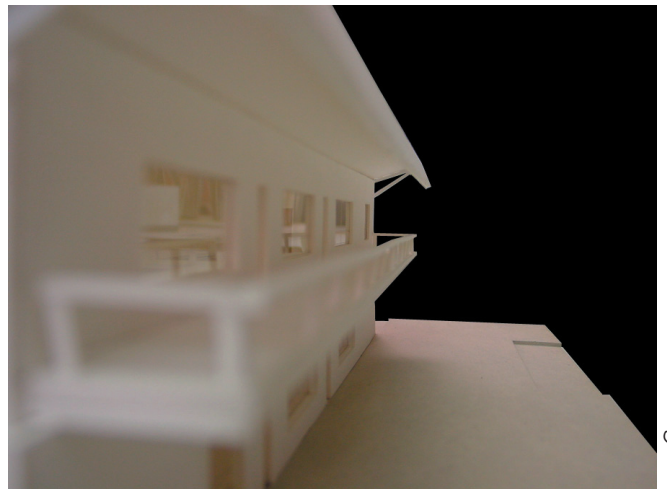
Exterior Perspective



Building Model



Building Model



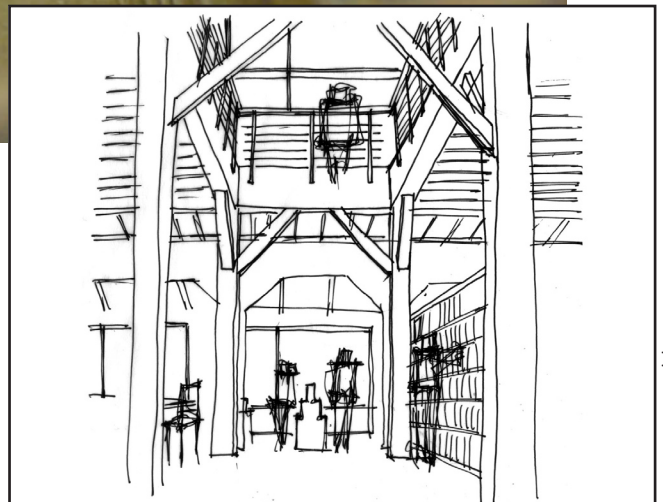
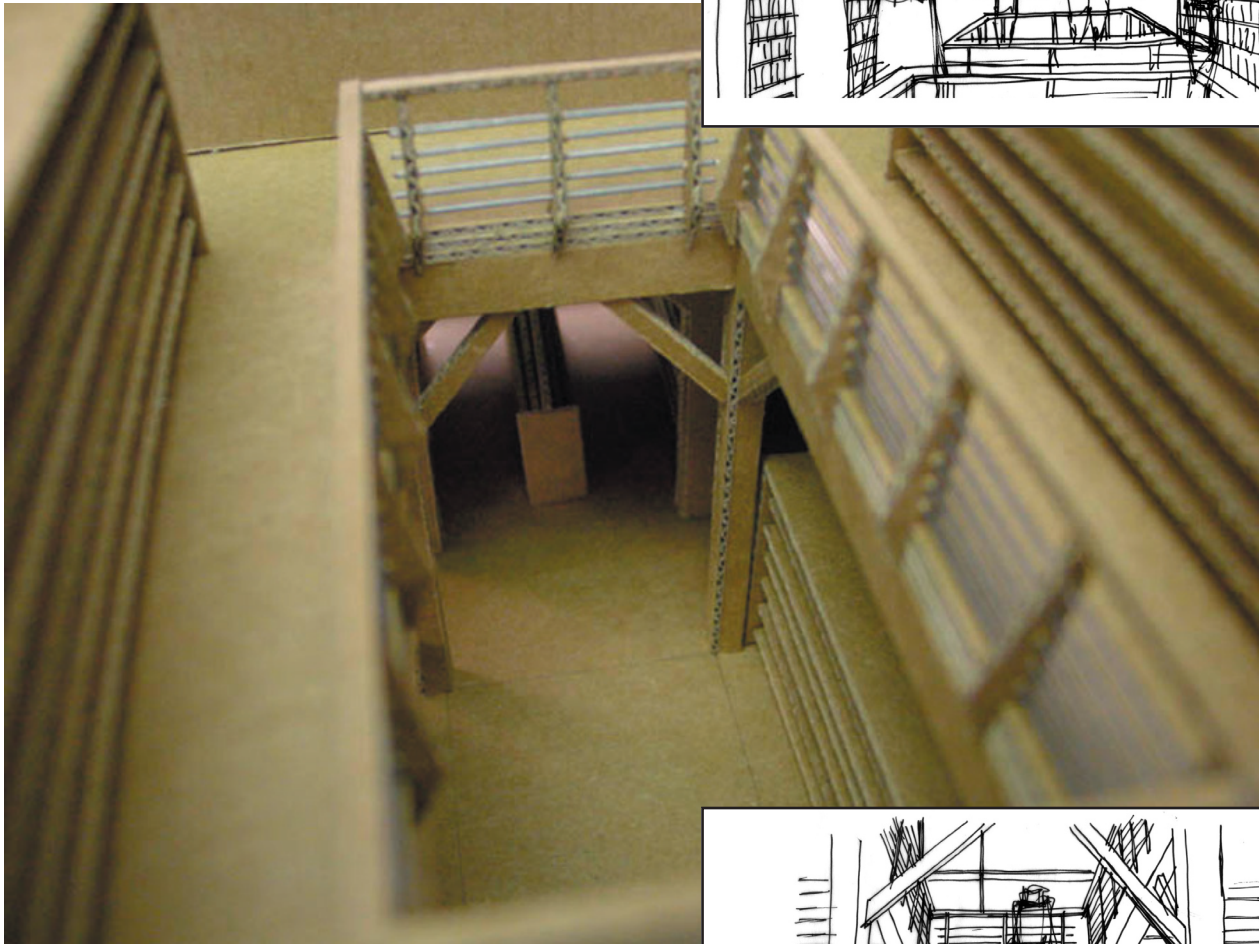
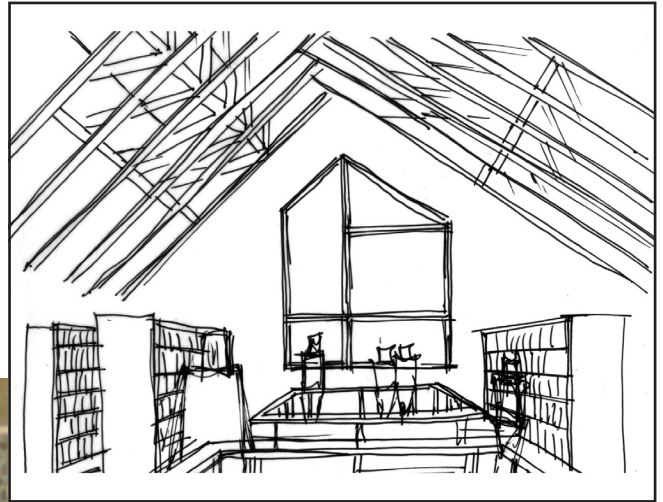
Building Model

INTERIOR STUDY

The interior like the exterior is designed with agricultural barn aesthetics in mind. This led to most of the structure being made from wood. Nearly all of the wood structure is left exposed to help create the barn aesthetic. The trusses that support the roof structure are derived from a typical barn roof truss. A typical barn truss is simply cut in half, then rotated or supported from a non-traditional point. These two pieces are then combined to create the designed truss. The interior also makes use of several openings to the second floor. These spaces do two things for the library, one is that they allow natural light to penetrate down into the first floor from the skylights. The second thing that these openings do is they create loft-like experiences within the library, much like you would find in a barn. On the wood columns at the corners of each opening wooden braces were added to aesthetically enhance this experience. It was also the intent of this design that the library's bookcases and furniture would be designed with a complementary wood palette. The lighting fixtures on the interior are hung from the structure. This allowed for the illusion of a lower ceiling plane to create more intimate spaces within the large open spaces of the library.



Interior Model

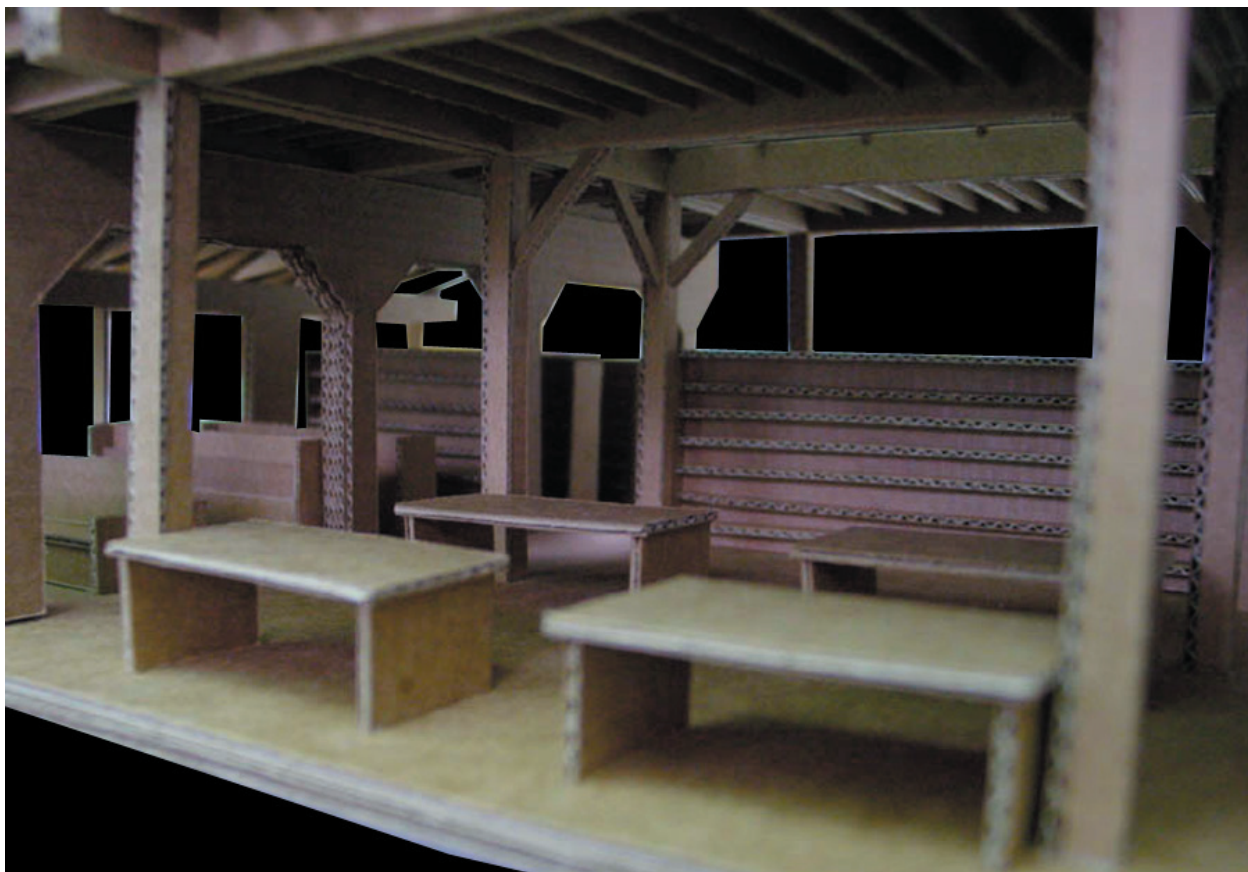


- a) Second Floor Perspective
- b) View down through floor opening
- c) View up through floor opening

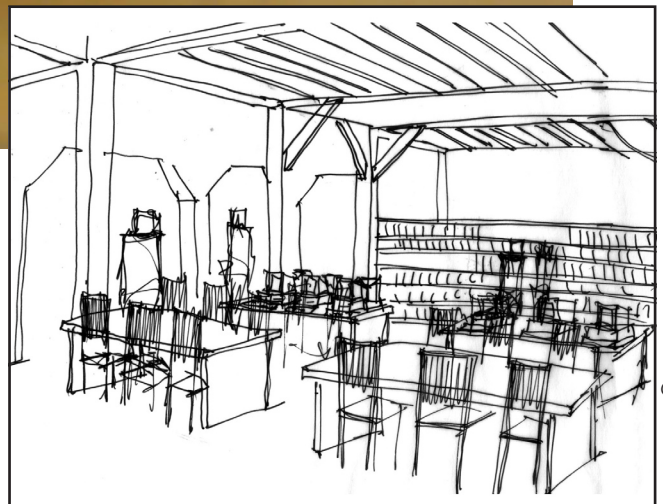
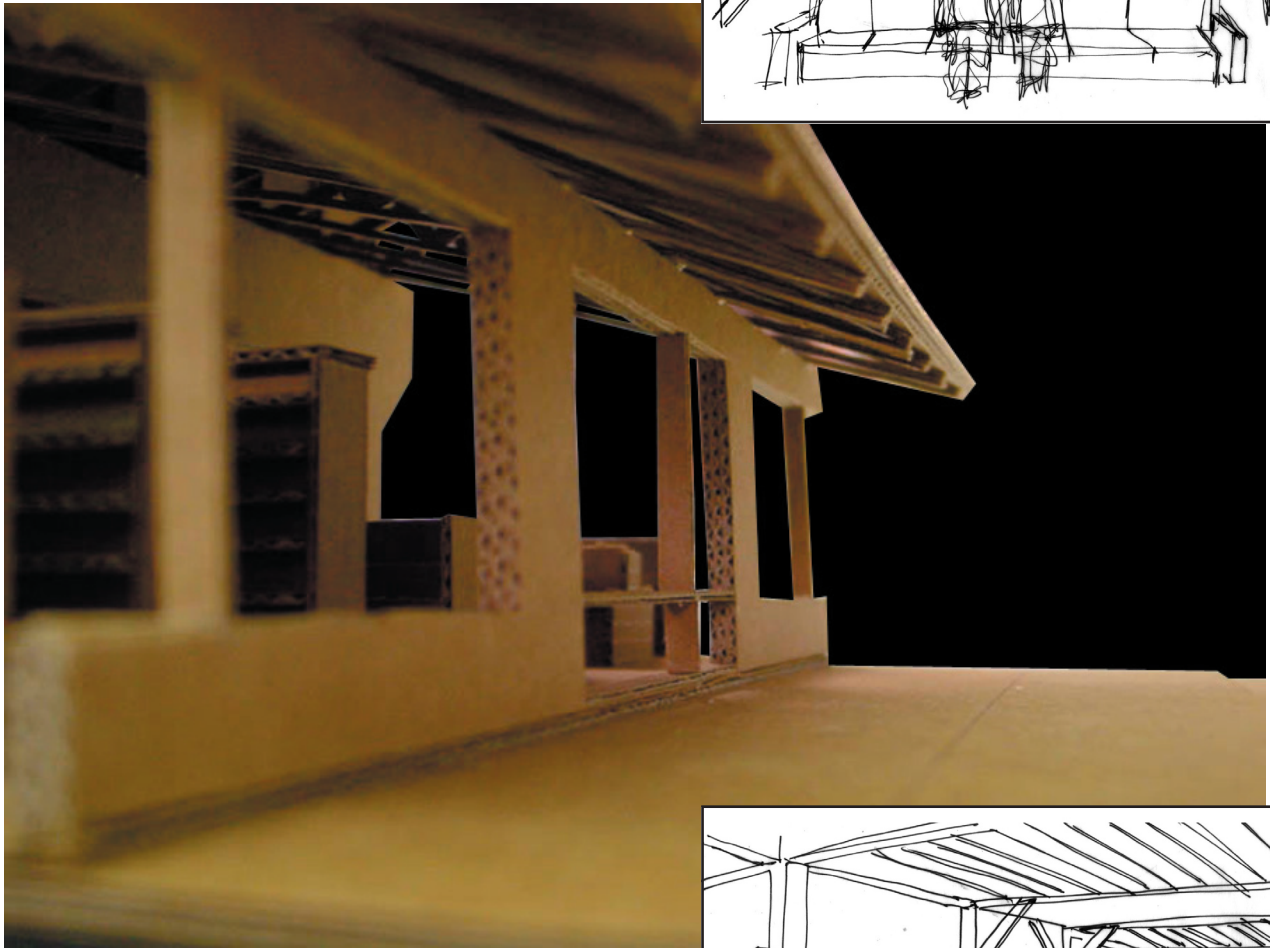
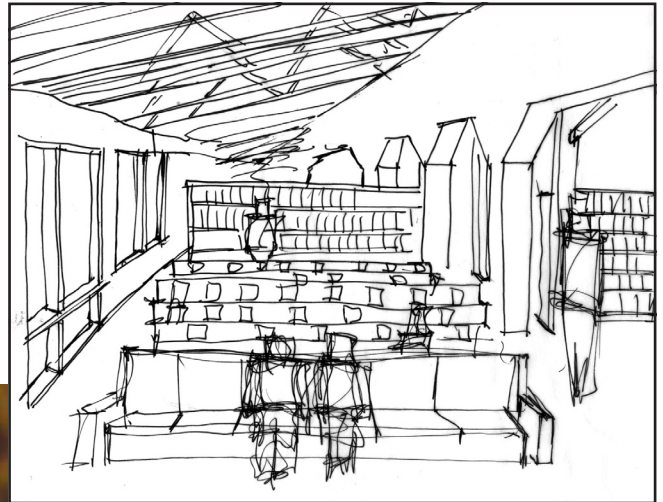
COMMUNITY CONSIDERATIONS

The interior of the library and important outside areas to the north and east are designed to provide the Selma community with several gathering spaces. The library's conference room may also double as classroom for local groups. The library may also use its computer area to provide continuing educational opportunities for the community. In the library's children's area there is an amphitheater for a children's reading time to occur. The library also offers several locations where small informal meetings might occur, or a child may do his homework by himself or as a part of a group. In nearly all of these locations where someone would stop, views outside are provided.

The Timberland Library in Belfair, Washington (to the right) illustrates similar aesthetics as those envisioned for the Selma Public Library.



Interior Model



- a) Periodical area perspective
- b) Exterior sidewalk view
- c) Computer area perspective

REFLECTIONS

So what did this thesis really teach me? I began this thesis with the intent of creating an environmentally friendly building that would communicate the importance of being aware of how we all effect the environment. Several gestures were made to address this problem, but somewhere along the line I realized that the architecture was probably only going to be an example of environmentally friendly architecture. At the same time I also realized that it was going to be hard for this library to communicate how we effect the environment without a physical person telling the story or teaching.

Through the evolution of this thesis ideas about community began to emerge as the most important factors in the design of this building. I discovered that every community has distinctive qualities and patterns of behavior that influence a building's design. I also discovered that the character of a building can be very reflective of the character of the community within which it resides. I think that this is probably an important idea that should be carried out in all public buildings.

I think this thesis has taught me that the most rewarding things are those upon which you didn't expect to discover no mater what direction you set out on.

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